

IN THE CLAIMS

Please cancel claims 1-20, all of the claims in the subject application, as filed, as constituted by the verified translation of PCT/EP2005/051161. Please also cancel claims 1-18 as submitted by Koenig and Bauer under Article 19 on July 19, 2005.

Please add new claims 21-38, as follows:

Claims 1-20 (Cancelled)

21. (New) An optical system adapted to generate an illuminated pattern on a surface of a material comprising:

material support means supporting said material for movement relative to said illuminated pattern at a variable transport speed;

an illumination arrangement including a plurality of light sources, said illumination arrangement being usable to generate said illuminated pattern;

a detection device usable to detect light emitted by said light sources;

a control device usable to operate selectively one and a group of said plurality of light sources in a pulsed manner;

a light source chronological behavior of at least one light source of said plurality of light sources, said light source chronological behavior including a light source switched-on time length and a light source delay time length immediately preceding said light source switched-on time;

a detection device chronological behavior of said detection device

including a detection device exposure time length and a detection device off time length immediately following said exposure time, said off time being set as a function of said variable transport speed, said light source switched-on time length being synchronized with said detection device exposure time length;

a first time sum set by said control device and including said light source delay time length and said light source switched-on time length; and

a second time sum set by said control device and including said detection device exposure time length, said second time sum being greater than said first time sum, said light source switched-on time length being within said detection device exposure time length.

22. (New) The optical system of claim 21 wherein said control device is usable to switch said light source on simultaneously with said detection device exposure time.

23. (New) The optical system of claim 21 further including an electrical current supply assigned to said illumination arrangement and being controlled by said control device.

24. (New) The optical system of claim 21 wherein said detection device is a line-scanning camera.

25. (New) The optical system of claim 21 further including several groups of said

light sources in said illumination arrangement.

26. (New) The optical system of claim 25 further including at least one electrical current source controlled by said control device and assigned to each of said several groups of said light sources.

27. (New) The optical system of claim 26 wherein each said electrical current source is a constant electrical current source.

28. (New) The optical system of claim 21 further including an illuminated strip formed by said illumination arrangement on said material, said illuminated strip having a strip width and a strip length and forming said illuminated pattern.

29. (New) The optical system of claim 21 wherein said plurality of light sources are arranged as lines in said illumination arrangement and further wherein a profile of an amount of light is produced by control of said light sources over a length of their arrangement as said lines.

30. (New) The optical system of claim 29 wherein said profile is set along a length of an illuminated strip.

31. (New) The optical system of claim 21 wherein said control device varies said

switched-on time length as a function of optical properties of said material to be illuminated.

32. (New) The optical system of claim 21 further including a light sensor connected with said control device and usable to measure an amount of light emitted by said light sources.

33. (New) The optical system of claim 32 wherein said control device matches said switched-on time length of said light sources to a degradation behavior of said light sources by use of said light sensor.

34. (New) The optical system of claim 32 wherein said control device compensates for a reduction in an amount of light emitted by said light sources, as a result of their aging, by use of said measured signal from said light sensor.

35. (New) The optical system of claim 21 wherein said detection device includes a plurality of detectors arranged next to each other in the shape of lines.

36. (New) The optical system of claim 35 wherein said detections arranged next to each other in the shape of lines are arranged parallel to one of a length of an illuminated strip and a width of said material.

37. (New) The optical system of claim 35 wherein a spacing between said lines of detection and said direction of movement of said material, is orthogonal.

38. (New) The optical system of claim 21 wherein at least one light source of said illumination arrangement emits a constant amount of light.